Serial No.: 10/702,365

REMARKS

I. Status Summary

Claims 1-29 are pending in the present application. Reconsideration of the application as amended and based on the arguments set forth hereinbelow is respectfully requested.

The paragraph beginning at page 7, line 22, has been amended to replace the reference numeral **112** with the reference numeral **122** for correcting a typographical error. The signaling message database shown in Figure 1 should be referenced by reference numeral **122**.

II. Claim Rejections Under 35 U.S.C. § 102

Claims 1, 2, and 4-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,282,267 to Nolting (hereinafter, "Nolting"). This rejection is respectfully traversed.

Claim 1 recites a method for automated analysis of signaling link utilization. In particular, claim 1 recites copying signaling message from a plurality of different signaling links and storing the signaling messages in a signaling message database. For example, referring to Figure 1 of the present application, message copy functions 108 copy signaling message from signaling links and transmit the copied messages to a signaling message database **122** for storage. (Specification, page 8, lines 1-13.) Claim 1 also recites generating signaling link utilization data based on the data stored in the database. For example, link utilization data may be generated by a link utilization

- 3 -

Serial No.: 10/702,365

application **128** based on the messages stored in database **122**. (Specification, page 8, line 14.) Further, claim 1 recites displaying a signaling link utilization screen to a user. Figure 3 of the present application illustrates an example of signaling link utilization data that is displayed to a user in graphical format. Claim 1 recites that the signaling link utilization screen includes signaling link utilization data for a plurality of different signaling links.

Further, claim 1 recites receiving input from the user via the link utilization screen regarding a portion of the signaling link utilization data that the user desires to analyze. For example, referring again to Figure 3, a user may select a spike **300**, which includes the highest point of link occupancy data. (Specification, page 10, lines 10-12.) Claim 1 also recites automatically extracting signaling message data corresponding to the selected signaling link utilization data from the signaling message database. For example, the signaling message data corresponding to the selected spike **300** is extracted from database **122**. (Specification, page 10, lines 12-20.) Further, claim 1 recites displaying the signaling message data to the user via a computer display device. Figure 4 illustrates an example of signaling message data that may be displayed to a user for use in diagnosing the cause of signaling link utilization problems. (Specification, page 10, line 21, to page 11, line 4.)

Thus, claim 1 recites a method that includes displaying signaling link utilization data to a user, receiving a user selection of specific link utilization data, and displaying the corresponding message data to the user. Displaying the message data

- 4 -

Serial No.: 10/702,365

corresponding to the signaling link utilization data allows the user to more effectively diagnose the cause of signaling link utilization problems.

Nolting is directed to real time monitoring of SS7 links. Referring to Figure 1 of Nolting, monitors 144 are connected to SS7 links for monitoring the links. (Nolting, column 11, line 23, to column 23, line 2.) Data collected from link monitoring is assembled at site processors 214, 216, and 218. (Nolting, column 12, lines 7-11.) Referring to Figure 2, an SS7 call detail record (CDR) server 220 collects and stores CDRs sent from the site processors. (Nolting, column 12, lines 16-19, and column 14, lines 20-27.) Further, server 220 tabulates and processes defined traffic management and user reports. (Nolting, column 12, lines 19-21.) The CDRs are stored as flat files and sent to work station 150 for analysis. (Nolting, column 14, lines 28-32.) Data related to link monitoring is written in HTML format for display using a web browser. (Nolting, column 14, lines 16-23.)

The Examiner contends that column 15, line 65, to column 16, line 6, of Nolting discloses elements (d)-(f) of claim 1. (Official Action, pages 2 and 3.) Nolting discloses that users can utilize an analytical software application to create interactive reports or perform "on the fly" analysis. (Nolting, column 15, line 65, to column 16, line 1.) Further, at column 16, lines 1-6, of Nolting, it is disclosed that the system is designed to be readily scaleable by users and data volume, expandable to web browser interface, and readily integrated with other PSTN databases and platforms.   However, there is no disclosure of the features required by elements (d)-(f) of claim 1. For example, element (d) of claim 1 recites receiving input from a user via a link utilization screen regarding a

- 5 -

Serial No.: 10/702,365

portion of the signaling link utilization data that the user desires to analyze. For example, as stated above, a user may select a spike **300** corresponding to signaling link utilization data that the user desires to analyze. (Specification, page 10, lines 12-20.) There is no disclosure in <u>Nolting</u> of receiving input from a user via a link utilization screen regarding a portion of the signaling link utilization data that the user desires to analyze, as required by element (d) of claim 1. Rather, <u>Nolting</u> generally describes using an analytical software application to create detailed interactive reports and performing "on the fly" analysis. Nowhere does <u>Nolting</u> disclose that the "on the fly analysis" includes selecting a portion of signaling link utilization data via a link utilization screen as claimed in claim 1.

Further, <u>Nolting</u> fails to disclose automatically extracting signaling message data corresponding to the selected signaling link utilization data from the signaling message database, as required by elements (e) and (f) of claim 1. As stated above, <u>Nolting</u> generally describes using an analytical software application to create detailed interactive reports and performing "on the fly" analysis without disclosing that the "on the fly analysis" includes receiving user input via a signaling link utilization screen regarding signaling link utilization data to be analyzed. As an example of the features of element (e) of claim 1, when spike **300** (shown in Figure 3) is selected, signaling message data corresponding to spike **300** is automatically extracted from database **122** and displayed to the user as signaling message data such as the data shown in Figure 4. <u>Nolting</u> fails to disclose automatically extracting signaling message data based on received input from the user regarding a portion of signaling link utilization data, as required by

- 6 -

Serial No.: 10/702,365

element (e). In addition, Nolting fails to disclose displaying the extracted data to the user, as required by element (f).

For the reasons set forth above, applicant respectfully submits that Nolting fails to disclose each and every feature required by claim 1. Therefore, it is respectfully submitted that claim 1 should be allowed and the rejection under 35 U.S.C. § 102(b) withdrawn.

Claims 2 and 4-11 depend from claim 1. Therefore, the comments presented above relating to claim 1 apply equally to claims 2 and 4-11. Accordingly, applicant respectfully submits that claims 2 and 4-11 should be allowed and the rejections under 35 U.S.C. § 102(b) withdrawn for the same reasons provided above for claim 1.

Claim 12 recites a system for automated analysis of signaling link utilization. Further, claim 12 recites a message copy function for copying signaling messages from a plurality of different signaling links. For example, message copy functions 108 shown in Figure 1 of the present application can copy signaling messages from signaling links. Claim 12 also recites a link utilization application operatively associated with the message copy function for generating link utilization data based on the copied signaling messages and for displaying the link utilization data to the user via a link utilization screen. For example, link utilization data may be generated by a link utilization application 128 based on the messages stored in database 122. (Specification, page 8, line 14.) Further, claim 12 recites an automated link utilization analyzer operatively associated with the link utilization application for receiving input from the user via the link utilization screen regarding link utilization data desired to be analyzed. Claim 12

-7-

Serial No.: 10/702,365

also recites that the automated link utilization analyzer automatically extracts corresponding signaling message information from a database in response to the input from the user and displays the extracted signaling message information to the user. For example, an automated link utilization analyzer 130 may identify data that a user selected, automatically extract corresponding signaling message information, and display the information to the user.

The Examiner contends that column 15, line 65, to column 16, line 6, of Nolting discloses the features recited by element (c) of claim 12. (Official Action, page 5.) Column 15, line 65, to column 16, line 1, of Nolting discloses that users can utilize an analytical software application to create interactive reports or perform "on the fly" analysis. Further, at column 16, lines 1-6, of Nolting, it is disclosed that the system is designed to be readily scaleable by users and data volume, expandable to web browser interface, and readily integrated with other PSTN databases and platforms. However, Nolting provides no disclosure of an automated link utilization analyzer as required by element (c) of claim 12. In particular, Nolting does not disclose an automated link utilization analyzer for receiving input from a user via a link utilization screen regarding link utilization data desired to be analyzed. Further, Nolting does not disclose the element (c) feature of automatically extracting corresponding signaling message information from a database and displaying the extracted signaling message information to the user. In contrast, Nolting only generally describes using an analytical software application to create detailed interactive reports and performing "on the fly" analysis

- 8 -

Serial No.: 10/702,365

without disclosing that the "on the fly analysis" includes receiving or processing the user input from the link utilization screen as claimed in claim 12.

For the reasons set forth above, applicant respectfully submits that Nolting fails to disclose each and every feature required by claim 12. Therefore, it is respectfully submitted that claim 12 should be allowed and the rejection under 35 U.S.C. § 102(b) withdrawn.

Claims 13-21 depend from claim 12. Therefore, the comments presented above relating to claim 12 apply equally to claims 13-21. Accordingly, applicant respectfully submits that claims 13-21 should be allowed and the rejections under 35 U.S.C. § 102(b) withdrawn for the same reasons provided above for claim 12.

Claim 22 recites a computer program product for automated analysis of signaling link utilization. Further, claim 22 recites displaying signaling link utilization data regarding utilization of a plurality of different signaling links to a user via a link utilization screen. Claim 22 also recites receiving input from the user via the link utilization screen regarding a portion of the signaling utilization data that the user desires to analyze. Further, claim 22 recites automatically extracting signaling message data corresponding to the selected signaling link utilization data from a signaling message database. Claim 22 also recites displaying the extracted signaling message data to the user via a computer display device.

The Examiner contends that column 15, line 65, to column 16, line 6, of Nolting discloses elements (b)-(d) of claim 22. (Official Action, pages 7 and 8.) As stated above, Nolting discloses that users can utilize an analytical software application to

- 9 -

Serial No.: 10/702,365

create interactive reports or perform "on the fly" analysis. (Nolting, column 15, line 65, to

column 16, line 1.) Further, at column 16, lines 1-6, of Nolting, it is disclosed that the

system is designed to be readily scaleable by users and data volume, expandable to

web browser interface, and readily integrated with other PSTN databases and

platforms. However, there is no disclosure of the features required by elements (b)-(d)

of claim 22. For example, element (b) of claim 22 recites receiving input from a user via

a link utilization screen regarding a portion of the signaling link utilization data that the

user desires to analyze. For example, as stated above, a user may select a spike 300

corresponding to signaling link utilization data that the user desires to analyze.

(Specification, page 10, lines 12-20.) There is no disclosure in Nolting of receiving input

from a user via a link utilization screen regarding a portion of the signaling link utilization

data that the user desires to analyze, as required by element (b) of claim 22. In

contrast, Nolting generally describes using an analytical software application to create

detailed interactive reports and performing "on the fly" analysis without disclosing that

the "on the fly analysis" includes receiving the user input via the signaling link utilization

screen as claimed in claim 22.

Further, Nolting fails to disclose automatically extracting signaling message data

corresponding to the selected signaling link utilization data from the signaling message

database, as required by element (c) of claim 22. As stated above, Nolting generally

describes using an analytical software application to create detailed interactive reports

and performing "on the fly" analysis. Nolting does not disclose automatically extracting

signaling message data based on received input from the user regarding a portion of

- 10 -

Serial No.: 10/702,365

signaling link utilization data, as required by element (c) of claim 22. In addition, Nolting fails to disclose displaying the extracted data to the user, as required by element (d) of claim 22.

For the reasons set forth above, applicant respectfully submits that Nolting fails to disclose each and every feature required by claim 22. Therefore, it is respectfully submitted that claim 22 should be allowed and the rejection under 35 U.S.C. § 102(b) withdrawn.

Claims 23-29 depend from claim 22. Therefore, the comments presented above relating to claim 22 apply equally to claims 23-29. Accordingly, applicant respectfully submit that claims 23-29 should be allowed and the rejections under 35 U.S.C. § 102(b) withdrawn for the same reasons provided above for claim 22.

III. Claim Rejections Under 35 U.S.C. § 103

Claim 3 stands rejected as being unpatentable over Nolting in view of U.S. Patent No. 6,327,350 to Spangler et al. (hereinafter, "Spangler"). This rejection is respectfully traversed.

Claim 3 depends from claim 1. As stated above, Nolting fails to disclose each and every feature recited by claim 1. Specifically, as stated above, Nolting fails to disclose the following claim 1 features: receiving input from the user via the link utilization screen regarding a portion of the signaling link utilization data that the user desires to analyze; automatically extracting signaling message data corresponding to the selected signaling link utilization data from the signaling message database; and

- 11 -

Serial No.: 10/702,365

displaying the signaling message data to the user via a computer display device. Further, Nolting fails to teach or suggest these features required by claim 1. The examples in Nolting relate to analysis of CDRs and AMA records without disclosing any particular user interface methods, not to mention the method for receiving the user input from the signaling link utilization screen recited in claim 1.

Spangler fails to overcome the significant shortcomings of Nolting. Spangler is directed to a system for processing SS7 message signal units (MSUs). (Spangler, column 2, lines 35-37.) The Examiner stated that Spangler discloses copying IP telephony signaling messages at column 3, lines 51-54. (Official Action, page 10.) However, Spangler fails to disclose or suggest the following claim 1 features: receiving input from the user via the link utilization screen regarding a portion of the signaling link utilization data that the user desires to analyze; automatically extracting signaling message data corresponding to the selected signaling link utilization data from the signaling message database; and displaying the signaling message data to the user via a computer display device.

As stated above, claim 3 depends from claim 1. Therefore, the comments presented above relating to claim 1 apply equally to claim 3. Therefore, applicant respectfully submits that the teachings of Nolting and Spangler cannot be combined to either teach or suggest each and every element recited in claim 3, and therefore, that claim 3 is not obvious in view of the cited references. Applicant, therefore, respectfully requests that the rejection of claim 3 under 35 U.S.C. §103(a) be withdrawn and the claim allowed at this time.

- 12 -

Serial No.: 10/702,365

CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS, WILSON & TAYLOR, P.A.

Date November 2, 2005   By: _____

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- 13 -